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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/836,541	04/18/2001	Ryan C. Kinter	1778.020000 (00128.00US)	6813
26111	7590	12/28/2004	EXAMINER	
STERNE, KESSLER, GOLDSTEIN & FOX PLLC 1100 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			PAN, DANIEL H	
			ART UNIT	PAPER NUMBER
			2183	

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)	
	09/836,541	KINTER ET AL.	
	Examiner	Art Unit	
	Daniel Pan	2183	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-8 and 10 is/are rejected.
- 7) ☒ Claim(s) 4 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>09/28/04</u> . | 6) <input type="checkbox"/> Other: _____ |

1. Claims 1-10 remain for examination.
2. Claim 1-3, 5-7, 8,10 are rejected under 35 U.S.C. 102(a) as being anticipated by Witt (6,199,154).
3. As to the amended feature of claim 1, the replacement of "a first instruction set" by "an instruction set" does not affect the scope of the claimed invention.
4. The rejections are maintained, and incorporated by reference the last Office Action on 04/28/04.
5. Applicant's response filed on 09/28/94 has been fully considered but is not persuasive.
6. In the remarks, applicant argued in substance that :
 - a) Witt's cache lines are not mappers as defined in specification : "for mapping an instruction of said instruction set to a predetermined instruction width format (PIWF) configuration", mapping is a conversion of an instruction to a predetermined instruction width format that is sufficient wide to accommodate two or more instruction sets;
 - b) Witt did not teach any instruction conversion between the cache 14 and the cache 16;
 - c) the start bit/boundary information of Witt is does not provide mapping instruction of the instruction set to a predetermined instruction width format configuration;
 - d) even if Witt 's predecoder was a mapper, it did not map instruction to a predetermined instruction width format configuration;

7. As to a) above, Witt did disclose a plurality of mappers [cache entries 16] for receiving instructions of a first set (from instruction bytes) , each mapper for mapping instruction to a predetermined instruction width configuration [tag, predecode data, and instruction byte] (see the predecode data included the start byte position and boundary information of the instruction in col.5, lines 65-67, col.6, lines 1-23, see col.25, lines 39-65). As to the mapping for a conversion of an instruction to a predetermined instruction width format that is sufficient wide to accommodate two or more instruction sets, applicant is kindly reminded that unclaimed features cannot be used to overcome the prior art (e.g. see CCPA In re Lundenberg & Zuschlag, 113, USPQ 530, 534 (1957)). For example, nowhere does applicant claim recite a conversion of an instruction to a predetermined instruction width format that is sufficient wide to accommodate two or more instruction sets, or the like (see claim 1). Furthermore, Witt did disclose that his cache was directly mapped (col.14, lines 8-24). The instruction width format (PIWF) was interpreted as the tag, prerecorded data, and instruction byte in paragraph 3 of the last Office action on 04/28/04 , therefore, it will not be repeated herein. No specific type of the instruction width format configuration has been reflected into the claim, therefore, any instruction width format configuration information , such as tag, bit boundary, bit position and byte, etc. could be used as width format configuration. Nevertheless, Witt disclosed a start bit position to accommodate a plurality of instructions (see Witt's predecoder in col.5, lines 65-67, col.6, lines 1-23). The start bit was used for identifying the instruction boundaries between instructions ,

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therefore, Witt's predecoder was directed to the instruction width format configuration (e.g. start bit position).

8. As to b) above, see discussions in response to a) above. No conversion of instruction between two caches has been reflected into the claim..

9. As to c) , the start bit/boundary information of Witt provided a mapping of instruction of the instruction set to a predetermined instruction width format configuration because the start bit boundary was the bit position and boundary of the prerecorded instruction configuration. In other words, the start bit boundary was the instruction length configuration (see col.5., lines 65,67, col.6, lines 1-23 for the instruction bit position information).

10. As to d) , Witt's predecoder (see col.5, lines 65-67, col.6, lines 1-23) was used for identifying the instruction boundaries between instructions , therefore, Witt's predecoder was directed to the instruction width format configuration (e.g. start bit position).

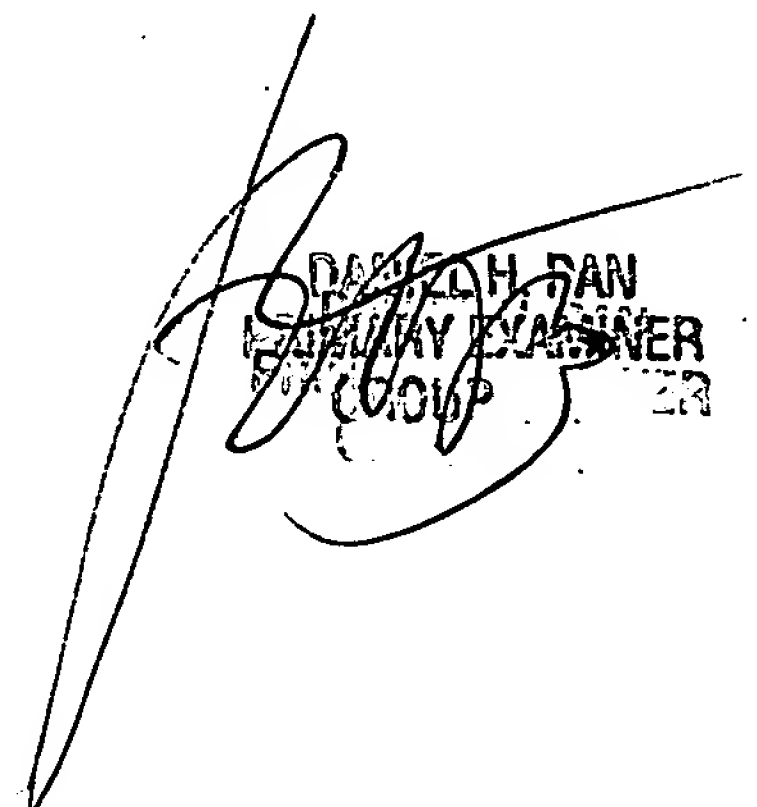
11. Claims 4, 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the

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base claim and any intervening claims. None of the prior art of record further teaches the combined features of the fill buffer and instruction cache. Witt taught his mapper received instructions from an instruction cache (fig.7 | cache 14), but failed to teach another mapper for receiving instructions from a fill buffer. While Witt's cache 14 can be seen as a fill buffer, but the combined limitations of a mapper (second mapper) received instructions from an instruction cache (fig.7 | cache 14), and another mapper (first mapper) for receiving instructions from a fill buffer is not being taught.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.



DANIEL H. DAN
REGISTERED PATENT EXAMINER
USPTO

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Pan whose telephone number is 703 305 9696, or the new number 571 272 4172. The examiner can normally be reached on M-F from 8:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chan, can be reached on 703 305 9712, or the new number 571 272 4162. The fax phone number for the organization where this application or proceeding is assigned is 703 306 5404.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

21 Century Strategic Plan

Dr. P. n/p/14